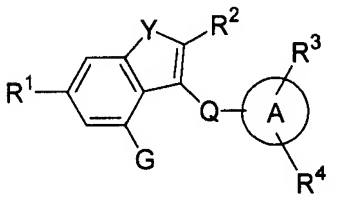
AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1. (currently amended): A fused heterocyclic derivative represented by the following general formula (I):



(I)

wherein

R^1 represents a hydrogen atom, a halogen atom, a hydroxy group, an amino group, a mono or di(C_{1-6} alkyl)amino group, a C_{1-6} alkyl group, a C_{1-6} alkoxy group, a halo(C_{1-6} alkyl) group, a halo(C_{1-6} alkoxy) group, a hydroxy(C_{1-6} alkyl) group, a hydroxy(C_{1-6} alkoxy) group, a mono or di[hydroxy(C_{1-6} alkyl)]amino group, a carboxy group, a C_{2-7} alkoxycarbonyl group, a carbamoyl group or a carbamoyl(C_{1-6} alkyl) group;

R^2 represents a hydrogen atom, a halogen atom or a C_{1-6} alkyl group;

R^3 and R^4 independently represent a hydrogen atom, a hydroxy group, a halogen atom, a C_{1-6} alkyl group, a C_{2-6} alkenyl group, a C_{2-6} alkynyl group, a C_{1-6} alkoxy group, a C_{2-6} alkenyloxy group, a C_{1-6} alkylthio group, a C_{2-6} alkenylthio group, a halo(C_{1-6} alkyl) group, a halo(C_{1-6} alkoxy) group, a halo(C_{1-6} alkylthio) group, a hydroxy(C_{1-6} alkyl) group, a hydroxy(C_{2-6} alkenyl) group, a hydroxy(C_{1-6} alkoxy) group, a hydroxy(C_{1-6} alkylthio) group, a carboxy group, a carboxy(C_{1-6} alkyl) group, a carboxy(C_{2-6} alkenyl) group, a carboxy(C_{1-6} alkoxy) group,

a carboxy(C_{1-6} alkylthio) group, a C_{2-7} alkoxycarbonyl group, a C_{2-7} alkoxycarbonyl-substituted (C_{1-6} alkyl) group, a C_{2-7} alkoxycarbonyl-substituted (C_{2-6} alkenyl) group, a C_{2-7} alkoxycarbonyl-substituted (C_{1-6} alkoxy) group, a C_{2-7} alkoxycarbonyl-substituted (C_{1-6} alkylthio) group, a C_{1-6} alkylsulfinyl group, a C_{1-6} alkylsulfonyl group, -U-V-W-N(R^5)-Z or any of the following substitutes (i) to (xxviii) which may have 1 to 3 substituents selected from the following substituent group α on the ring;

(i) a C_{6-10} aryl group, (ii) C_{6-10} aryl-O-, (iii) C_{6-10} aryl-S-, (iv) a C_{6-10} aryl-substituted (C_{1-6} alkyl) group, (v) a C_{6-10} aryl-substituted (C_{1-6} alkoxy) group, (vi) a C_{6-10} aryl-substituted (C_{1-6} alkylthio) group, (vii) a heteroaryl group, (viii) heteroaryl-O-, (ix) heteroaryl-S-, (x) a heteroaryl(C_{1-6} alkyl) group, (xi) a heteroaryl(C_{1-6} alkoxy) group, (xii) a heteroaryl(C_{1-6} alkylthio) group, (xiii) a $\underline{C_{3-8}}$~~C_{3-7}~~ cycloalkyl group, (xiv) $\underline{C_{3-8}}$~~C_{3-7}~~ cycloalkyl-O-, (xv) $\underline{C_{3-8}}$~~C_{3-7}~~ cycloalkyl-S-, (xvi) a $\underline{C_{3-8}}$~~C_{3-7}~~ cycloalkyl-substituted (C_{1-6} alkyl) group, (xvii) a $\underline{C_{3-8}}$~~C_{3-7}~~ cycloalkyl-substituted (C_{1-6} alkoxy) group, (xviii) a $\underline{C_{3-8}}$~~C_{3-7}~~ cycloalkyl-substituted (C_{1-6} alkylthio) group, (xix) a heterocycloalkyl group, (xx) heterocycloalkyl-O-, (xxi) heterocycloalkyl-S-, (xxii) a heterocycloalkyl(C_{1-6} alkyl) group, (xxiii) a heterocycloalkyl(C_{1-6} alkoxy) group, (xxiv) a heterocycloalkyl(C_{1-6} alkylthio) group, (xxv) an aromatic cyclic amino group, (xxvi) an aromatic cyclic amino(C_{1-6} alkyl) group or (xxvii) an aromatic cyclic amino(C_{1-6} alkoxy) group, (xxviii) an aromatic cyclic amino(C_{1-6} alkylthio) group,

U represents –O-, -S- or a single bond and with the proviso that at least one of V and W is not a single bond, when U is –O- or –S-);

V represents a C_{1-6} alkylene group which may have a hydroxy group, a C_{2-6} alkenylene group or a single bond;

W represents –CO-, -SO_2-, -C(=NH)- or a single bond;

Z represents a hydrogen atom, a C_{2-7} alkoxycarbonyl group, a C_{6-10} aryl-substituted (C_{2-7} alkoxycarbonyl) group, a formyl group, $-R^A$, $-COR^B$, $-SO_2R^B$, $-CON(R^C)R^D$, $-CSN(R^C)R^D$, $-SO_2NHR^A$ or $-C(=NR^E)N(R^F)R^G$;

R^5, R^A, R^C and R^D independently represent a hydrogen atom, a C_{1-6} alkyl group which may have 1 to 5 substituents selected from the following substituent group β or any of the following substitutes (xxix) to (xxxii) which may have 1 to 3 substituents selected from the following substituent group α;

(xxix) a C_{6-10} aryl group, (xxx) a heteroaryl group, (xxxi) a C_{3-8}~~C_{3-7}~~ cycloalkyl group or (xxxii) a heterocycloalkyl group

or both of Z and R^5 bind together with the neighboring nitrogen atom to form an aliphatic cyclic amino group which may have 1 to 3 substituents selected from the following substituent group α;

or both of R^C and R^D bind together with the neighboring nitrogen atom to form an aliphatic cyclic amino group which may have 1 to 3 substituents selected from the following substituent group α;

R^B represents a C_{2-7} alkoxycarbonyl group, a C_{1-6} alkylsulfonylamino group, a C_{6-10} arylsulfonylamino group, a C_{1-6} alkyl group which may have 1 to 5 substituents selected from the following substituent group β or any of the following substitutes (xxxiii) to (xxxvi) which may have 1 to 3 substituents selected from the following substituent group α;

(xxxiii) a C_{6-10} aryl group, (xxxiv) a heteroaryl group, (xxxv) a C_{3-7} cycloalkyl group or (xxxvi) a heterocycloalkyl group,

R^E, R^F and R^G independently represent a hydrogen atom, a cyano group, a carbamoyl group, a C_{2-7} acyl group, a C_{2-7} alkoxycarbonyl group, a C_{6-10} aryl-substituted (C_{2-7} alkoxycarbonyl) group, a nitro group, a C_{1-6} alkylsulfonyl group, a sulfamoyl group, a carbamimidoyl group or a C_{1-6} alkyl group which may have 1 to 5 substituents selected from the following substituent group β;

or both of R^E and R^F bind together to form an ethylene group;

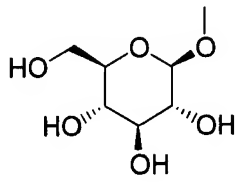
or both of R^F and R^G bind together with the neighboring nitrogen atom to form an aliphatic cyclic amino group which may have a substituent selected from the following substituent group α;

Y represents –O-, -S-, or –NH- which may be substituted by a C_{1-6} alkyl group or a halo(C_{1-6} alkyl) group;

Q represents -C_{1-6} alkylene-, -C_{2-6} alkenylene-, -C_{1-6} alkylene-O-, -C_{1-6} alkylene-S-, -O-C_{1-6} alkylene-, -S-C_{1-6} alkylene-, -C_{1-6} alkylene-O-C_{1-6} alkylene- or -C_{1-6} alkylene-S-C_{1-6} alkylene-;

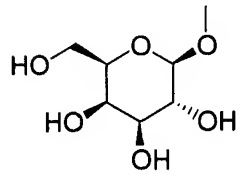
ring A represents a C_{6-10} aryl group or a heteroaryl group;

G represents a group represented by the formula:



(G 1)

or a formula:



(G 2);

[substituent group α]

a halogen atom, a hydroxy group, an amino group, a C_{1-6} alkyl group, a C_{1-6} alkoxy group, a halo(C_{1-6} alkyl) group, a halo(C_{1-6} alkoxy)group, a hydroxy(C_{1-6} alkyl) group, a C_{2-7} alkoxycarbonyl-substituted (C_{1-6} alkyl) group, a hydroxy(C_{1-6} alkoxy) group, an amino(C_{1-6} alkyl) group, an amino(C_{1-6} alkoxy) group, a mono or di(C_{1-6} alkyl)amino group, a mono or di[hydroxy(C_{1-6} alkyl)]amino group, a C_{1-6} alkylsulfonyl group, a C_{1-6} alkylsulfonylamino group, a C_{1-6} alkylsulfonylamino-substituted (C_{1-6} alkyl) group, a carboxy group, a C_{2-7} alkoxycarbonyl group, a sulfamoyl group and $-CON(R^H)R^I$

[substituent group β]

a halogen atom, a hydroxy group, an amino group, a C_{1-6} alkoxy group, a C_{1-6} alkylthio group, a halo(C_{1-6} alkoxy) group, a halo(C_{1-6} alkylthio) group, a hydroxy(C_{1-6} alkoxy) group, a hydroxy(C_{1-6} alkylthio) group, an amino(C_{1-6} alkoxy) group, an amino(C_{1-6} alkylthio) group, a mono or di(C_{1-6} alkyl)amino group, a mono or di[hydroxy(C_{1-6} alkyl)]amino group, an ureido group, a sulfamide group, a mono or di(C_{1-6} alkyl)ureido group, a mono or di[hydroxy(C_{1-6} alkyl)]ureido group, a mono or di(C_{1-6} alkyl)sulfamide group, a mono or di[hydroxy(C_{1-6} alkyl)]-sulfamide group, a $\underline{C_{2-6}}$~~C_{2-7}~~ acylamino group, an amino($\underline{C_{2-6}}$~~C_{2-7}~~ acylamino) group, a C_{1-6} alkylsulfonyl group, a C_{1-6} alkylsulfonylamino group, a carbamoyl(C_{1-6} alkylsulfonylamino) group, a carboxy group, a C_{2-7} alkoxycarbonyl group, $-CON(R^H)R^I$, and any of the following substitutes (xxxvii) to (xxxxviii) which may have 1 to 3 substituents selected from the above substituent group α on the ring;

(xxxvii) a C_{6-10} aryl group, (xxxviii) C_{6-10} aryl-O-, (xxxix) a C_{6-10} aryl-substituted (C_{1-6} alkoxy) group, (xxxx) a C_{6-10} aryl-substituted (C_{1-6} alkylthio) group, (xxxxi) a heteroaryl group, (xxxxii) heteroaryl-O-, (xxxxiii) a $\underline{C_{3-8}}$~~C_{3-7}~~ cycloalkyl group, (xxxxiv) $\underline{C_{3-8}}$~~C_{3-7}~~ cycloalkyl-O-,

(xxxxv) a heterocycloalkyl group, (xxxxvi) heterocycloalkyl-O-, (xxxxvii) an aliphatic cyclic amino group or (xxxxviii) an aromatic cyclic amino group

R^H and R^I independently represent a hydrogen atom or a C_{1-6} alkyl group which may have 1 to 3 substituents selected from the following substituent group γ;

or both of R^H and R^I bind together with the neighboring nitrogen atom to form an aliphatic cyclic amino group which may have 1 to 3 substituents selected from the following substituent group δ;

[substituent group γ]

a halogen atom, a hydroxy group, an amino group, a C_{1-6} alkoxy group, a halo(C_{1-6} alkoxy) group, a hydroxy(C_{1-6} alkoxy) group, an amino(C_{1-6} alkoxy) group, a mono or di(C_{1-6} alkyl)amino group, a mono or di[hydroxy(C_{1-6} alkyl)]amino group, an ureido group, a sulfamide group, a mono or di(C_{1-6} alkyl)ureido group, a mono or di[hydroxy(C_{1-6} alkyl)]ureido group, a mono or di(C_{1-6} alkyl)sulfamide group, a mono or di[hydroxy(C_{1-6} alkyl)]sulfamide group, a $\underline{C_{2-6}}$~~C_{2-7}~~ acylamino group, an amino($\underline{C_{2-6}}$~~C_{2-7}~~ acylamino) group, a C_{1-6} alkylsulfonyl group, a C_{1-6} alkylsulfonylamino group, a carbamoyl(C_{1-6} alkylsulfonylamino) group, a carboxy group, a C_{2-7} alkoxycarbonyl group and -CON(R^J)R^K

[substituent group δ]

a halogen atom, a hydroxy group, an amino group, a C_{1-6} alkyl group, a C_{1-6} alkoxy group, a halo(C_{1-6} alkyl) group, a halo(C_{1-6} alkoxy) group, a hydroxy(C_{1-6} alkyl) group, a C_{2-7} alkoxycarbonyl-substituted (C_{1-6} alkyl) group, a hydroxy(C_{1-6} alkoxy) group, an amino(C_{1-6} alkyl) group, an amino(C_{1-6} alkoxy) group, a mono or di(C_{1-6} alkyl)amino group, a mono or di[hydroxy(C_{1-6} alkyl)]amino group, a C_{1-6} alkylsulfonyl group, a C_{1-6} alkylsulfonylamino group,

a C_{1-6} alkylsulfonylamino-substituted (C_{1-6} alkyl) group, a carboxy group, a C_{2-7} alkoxycarbonyl group, a sulfamoyl group and -CON(R^J)R^K

R^J and R^K independently represent a hydrogen atom or a C_{1-6} alkyl group which may have any 1 to 3 substituents selected from a hydroxy group, an amino group, a mono or di(C_{1-6} alkyl)amino group, a C_{2-7} alkoxycarbonyl group and a carbamoyl group;

or both of R^J and R^K bind together with the neighboring nitrogen atom to form an aliphatic cyclic amino group which may have any 1 to 3 substituents selected from a hydroxy group, an amino group, a mono or di(C_{1-6} alkyl)amino group, a C_{1-6} alkyl group, a hydroxy(C_{1-6} alkyl) group, a C_{2-7} alkoxycarbonyl group, a C_{2-7} alkoxycarbonyl-substituted (C_{1-6} alkyl) group and a carbamoyl group,

or a pharmaceutically acceptable salt thereof, or a prodrug thereof.

2. (original): A fused heterocyclic derivative as claimed in claim 1, wherein R^2 represents a hydrogen atom; Y represents –O-, -S- or –NH-; Q represents an ethylene group, or a pharmaceutically acceptable salt thereof, or a prodrug thereof.

3. (previously presented): A fused heterocyclic derivative as claimed in claim 1 , wherein the ring A represents a group derived from a benzene ring, a pyridine ring, a pyrimidine ring, a pyrazine ring or a pyridazine ring, or a pharmaceutically acceptable salt thereof, or a prodrug thereof.

4. (original): A fused heterocyclic derivative as claimed in claim 3, wherein the ring A represents a phenyl group, or a pharmaceutically acceptable salt thereof, or a prodrug thereof.

5. (original): A fused heterocyclic derivative as claimed in claim 3, wherein the ring A represents a pyridyl group, or a pharmaceutically acceptable salt thereof, or a prodrug thereof.

6. (previously presented): A pharmaceutical composition comprising as an active ingredient a fused heterocyclic derivative as claimed in claim 1, or a pharmaceutically acceptable salt thereof, or a prodrug thereof.

Claims 7. - 12. (canceled).

13. (original): A pharmaceutical composition as claimed in claim 6, wherein the dosage form is sustained release formulation.

Claim 14. (canceled).

15. (previously presented): A method for the inhibition of postprandial hyperglycemia, which comprises administering to a patient in need thereof an effective amount of a fused heterocyclic derivative as claimed in claim 1, or a pharmaceutically acceptable salt thereof, or a prodrug thereof.

16. (previously presented): A method for the treatment of a disease associated with hyperglycemia, which comprises administering to a patient in need thereof an effective amount of a fused heterocyclic derivative as claimed in claim 1, or a pharmaceutically acceptable salt thereof, or a prodrug thereof.

17. (previously presented): A method for the treatment as claimed in claim 16, wherein the disease associated with hyperglycemia is a disease selected from the group consisting of diabetes, impaired glucose tolerance, diabetic complications, obesity, hyperinsulinemia,

hyperlipidemia, hypercholesterolemia, hypertriglyceridemia, lipid metabolism disorder, atherosclerosis, hypertension, congestive heart failure, edema, hyperuricemia and gout.

18. (previously presented): A method for the inhibition of advancing impaired glucose tolerance into diabetes in a subject, which comprises administering to a patient in need thereof an effective amount of a fused heterocyclic derivative as claimed in claim 1, or a pharmaceutically acceptable salt thereof, or a prodrug thereof.

Claims 19. - 22. (canceled).

23. (currently amended): A pharmaceutical composition as claimed in claim 6 which comprises combination with at least one member selected from the group consisting of an insulin sensitivity enhancer, a glucose absorption inhibitor, a biguanide, an insulin secretion enhancer, a SGLT2 inhibitor, an insulin or insulin analogue, a glucagon receptor antagonist, an insulin receptor kinase stimulant, a tripeptidyl peptidase II inhibitor, a dipeptidyl peptidase IV inhibitor, a protein tyrosine phosphatase-1B inhibitor, a glycogen phosphorylase inhibitor, a glucose-6-phosphatase inhibitor, a fructose-bisphosphatase inhibitor, a pyruvate dehydrogenase inhibitor, a hepatic gluconeogenesis inhibitor, D-chiroinsitol, a glycogen synthase kinase-3 inhibitor, glucagon-like peptide-1, a glucagon-like peptide-1 analogue, a glucagon-like peptide-1 agonist, amylin, an amylin analogue, an amylin agonist, an aldose reductase inhibitor, an advanced glycation endproducts formation inhibitor, a protein kinase C inhibitor, a γ-aminobutyric acid receptor antagonist, a sodium channel antagonist, a transcript factor NF-κB inhibitor, a lipid peroxidase inhibitor, an *N*-acetylated-α-linked-acid-dipeptidase inhibitor, insulin-like growth factor-I, platelet-derived growth factor, a platelet-derived growth factor analogue, epidermal

growth factor, nerve growth factor, a carnitine derivative, uridine, 5-hydroxy-1-methylhidantoin, EGB-761, bimoclomol, sulodexide, Y-128, ~~antidiarrhoics, cathartics,~~ a hydroxymethylglutaryl coenzyme A reductase inhibitor, a fibric acid derivative, a β_3-adrenoceptor agonist, an acyl-coenzyme A cholesterol acyltransferase inhibitor, probcol, a thyroid hormone receptor agonist, a cholesterol absorption inhibitor, a lipase inhibitor, a microsomal triglyceride transfer protein inhibitor, a lipoxygenase inhibitor, a carnitine palmitoyl-transferase inhibitor, a squalene synthase inhibitor, a low-density lipoprotein receptor enhancer, a nicotinic acid derivative, a bile acid sequestrant, a sodium/bile acid cotransporter inhibitor, a cholesterol ester transfer protein inhibitor, an appetite suppressant, an angiotensin-converting enzyme inhibitor, a neutral endopeptidase inhibitor, an angiotensin II receptor antagonist, an endothelin-converting enzyme inhibitor, an endothelin receptor antagonist, a diuretic agent, a calcium antagonist, a vasodilating antihypertensive agent, a sympathetic blocking agent, a centrally acting antihypertensive agent, an α_2-adrenoceptor agonist, an antiplatelets agent, a uric acid synthesis inhibitor, a uricosuric agent and a urinary alkalinizer.

Claim 24. (canceled).

25. (currently amended): A method as claimed in claim 15 which comprises administering the fused heterocyclic derivative as claimed in claim 1 in combination with at least one member selected from the group consisting of an insulin sensitivity enhancer, a glucose absorption inhibitor, a biguanide, an insulin secretion enhancer, a SGLT2 inhibitor, an insulin or insulin analogue, a glucagon receptor antagonist, an insulin receptor kinase stimulant, a tripeptidyl peptidase II inhibitor, a dipeptidyl peptidase IV inhibitor, a protein tyrosine phosphatase-1B inhibitor, a glycogen phosphorylase inhibitor, a glucose-6-phosphatase inhibitor,

a fructose-bisphosphatase inhibitor, a pyruvate dehydrogenase inhibitor, a hepatic gluconeogenesis inhibitor, D-chiroinsitol, a glycogen synthase kinase-3 inhibitor, glucagon-like peptide-1, a glucagon-like peptide-1 analogue, a glucagon-like peptide-1 agonist, amylin, an amylin analogue, an amylin agonist, an aldose reductase inhibitor, an advanced glycation endproducts formation inhibitor, a protein kinase C inhibitor, a γ-aminobutyric acid receptor antagonist, a sodium channel antagonist, a transcript factor NF-κB inhibitor, a lipid peroxidase inhibitor, an *N*-acetylated-α-linked-acid-dipeptidase inhibitor, insulin-like growth factor-I, platelet-derived growth factor, a platelet-derived growth factor analogue, epidermal growth factor, nerve growth factor, a carnitine derivative, uridine, 5-hydroxy-1-methylhidantoin, EGB-761, bimoclomol, sulodexide, Y-128, ~~antidiarrhoics, catharties,~~ a hydroxymethylglutaryl coenzyme A reductase inhibitor, a fibric acid derivative, a β_3-adrenoceptor agonist, an acyl-coenzyme A cholesterol acyltransferase inhibitor, probcol, a thyroid hormone receptor agonist, a cholesterol absorption inhibitor, a lipase inhibitor, a microsomal triglyceride transfer protein inhibitor, a lipoxygenase inhibitor, a carnitine palmitoyl-transferase inhibitor, a squalene synthase inhibitor, a low-density lipoprotein receptor enhancer, a nicotinic acid derivative, a bile acid sequestrant, a sodium/bile acid cotransporter inhibitor, a cholesterol ester transfer protein inhibitor, an appetite suppressant, an angiotensin-converting enzyme inhibitor, a neutral endopeptidase inhibitor, an angiotensin II receptor antagonist, an endothelin-converting enzyme inhibitor, an endothelin receptor antagonist, a diuretic agent, a calcium antagonist, a vasodilating antihypertensive agent, a sympathetic blocking agent, a centrally acting antihypertensive agent, an α_2-adrenoceptor agonist, an antiplatelets agent, a uric acid synthesis inhibitor, a uricosuric agent and a urinary alkalinizer.

26. (canceled).

27. (previously presented): A fused heterocyclic derivative as claimed in claim 2, wherein the ring A represents a group derived from a benzene ring, a pyridine ring, a pyrimidine ring, a pyrazine ring or a pyridazine ring, or a pharmaceutically acceptable salt thereof, or a prodrug thereof.

28. (previously presented): A fused heterocyclic derivative as claimed in claim 1, wherein Y is -O- or -S-.